

1. Record Nr.	UNINA9910678257003321
Autore	Hajian Alireza
Titolo	Intelligent Methods with Applications in Volcanology and Seismology / / by Alireza Hajian, Giuseppe Nunnari, Roohollah Kimiaefar
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2023
ISBN	3-031-15432-0
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (216 pages)
Collana	Advances in Volcanology, An Official Book Series of the International Association of Volcanology and Chemistry of the Earth's Interior, , 2364-3285
Disciplina	006.3 551.21
Soggetti	Physical geography Machine learning Geology Natural disasters Earth System Sciences Statistical Learning Natural Hazards
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Chapter1-Intelligent methods and motivations to use in volcanology and seismology -- Chapter2-Machine Learning: The concepts -- Chapter 3 - Machine Learning Applications in volcanology and seismology -- Chapter 4 - Deep Learning: The concepts -- Chapter 5: Deep Learning: Applications in Seismology and Volcanology -- Chapter 6: Evolutionary Algorithms with focus on Genetic Algorithm -- Chapter 7: Application of Genetic Algorithm in volcanology and seismology.
Sommario/riassunto	This book presents intelligent methods like neural, neuro-fuzzy, machine learning, deep learning and metaheuristic methods and their applications in both volcanology and seismology. The complex system of volcanoes and also earthquakes is a big challenge to identify their behavior using available models, which motivates scientists to apply non-model based methods. As there are lots of seismology and

volcanology data sets, i.e., the local and global networks, one solution is using intelligent methods in which data-based algorithms are used. .

---